

REMARKS

Claims 1, 2, 5, and 7 have been amended.

The Examiner has rejected applicant's claims 1, 2, and 5 under 35 U.S.C. 101 as reciting an invention directed to non-statutory subject matter, and in particular, to software code because claims 1-2 and 5 direct to different "means" but there is no definition in the specification for explaining the means is implemented in hardware or software. Applicant respectfully disagrees with the Examiner.

In particular, applicant's claims 1, 2 and 5 are not directed to software, but instead are directed to an apparatus, namely, a terminal apparatus which is connected to a network and to which a management apparatus is connected, and to a system including the management apparatus and a plurality of terminal apparatuses. The terminal apparatuses and the management apparatus, all of which are connected to the network, as recited in applicant's claims 1, 2 and 5, are physical structures and system components, and thus claims 1, 2 and 5 clearly fall into the machine category of 35 U.S.C. 101.

Moreover, claims 1, 2 and 5 clearly recite hardware based structural implementations of the "means," including the "reception means," "generation means," "transmission means," "execution means," "search means," and "storage means." Applicant's specification defines "reception means" as a communication module 301 which serves as an interface with the network 1. Page 12, lines 5 – 8. The specification also defines "generation means" and "transmission means" as a CPU which controls the overall program management apparatus 100 using program and data stored in a RAM 802 and ROM 803, and executes a generation process of the program management information 600, a transmission process of the generated program management information 600 to one of the terminal apparatuses to be managed. Page 13, lines 8 – 14. The "execution means" are defined in applicant's specification as a CPU which controls

the overall terminal apparatus 300 using programs and data stored in the RAM 852 and ROM 853, and executes a process according to the received program management information 600 (Page 15, line 26 – Page 16, line 2), and the “search means” are defined as the CPU 851 that outputs the program management information ID 605 onto the network 1 by, e.g., broadcast. The “storage means” are also defined by the specification as a storage device 307 which is shown in FIG. 1 of applicant’s drawings. Accordingly, applicant’s claims 1, 2, and 5 recite physical structures and components and are therefore directed to statutory subject matter in compliance with the requirements of 35 USC 101.

The Examiner has rejected applicant’s claims 1, 2, 5, 7, and 8 under 35 U.S.C. 103(a) as being unpatentable over the Earl et al. (US Patent 6,966,058) patent in view of “Official Notice” that the concepts and advantages of providing for quitting instructions and informing instructions are well known and expected in the art. Applicant has amended applicant’s independent claims 1, 5 and 7, and with respect to these claims, as amended, and their respective dependent claims, the Examiner’s rejection is respectfully traversed.

Applicant’s independent claim 1 has been amended to recite a terminal apparatus connected to a network to which a management apparatus is connected, the terminal apparatus comprising: reception means for receiving an instruction which is transmitted from the management apparatus or another terminal apparatus connected to the network, storage means for storing identifications of instructions received in the past by the reception means, determination means for determining whether or not an instruction newly received by the reception means is the same as any one of instructions have been already received in the past, using an identification of the newly received instruction and the identifications stored in the storage means, installation means for, if the newly received instruction is a program install instruction and is different from each of instructions have been already received in the past,

downloading a program designated by the newly received instruction from a server designated by the newly received instruction, and installing the downloaded program, execution means for, if the newly received instruction is a program execution instruction and is different from each of instructions have been already received in the past, executing a program designated by the newly received instruction, quitting means for, if the newly received instruction is a program execution quit instruction and is different from each of instructions have been already received in the past, quitting a program which has been executed and is designated by the newly received instruction, informing means for informing the management apparatus about the installation if the installation means installs the downloaded program, and about the execution if the execution means executes the program designated by the newly received instruction, search means for searching for a second terminal apparatus which is connected to the network and has not received the newly received instruction, and transfer means for transferring the newly received instruction to the second terminal apparatus, wherein if the newly received instruction includes both the program install instruction and the program execution instruction and is different from each of instructions have been already received in the past, the installation means downloads a program designated by the newly received instruction from a server designated by the newly received instruction, and installs the downloaded program, and the execution means executes the program, which is designated by the newly received instruction and is installed by the installation means. Applicant's independent claims 5 and 7 have been similarly amended.

The constructions recited in applicant's amended independent claims 1, 5, and 7 are not taught or suggested by the cited art of record. In particular, the Earl et al. patent fails to teach or suggest a terminal apparatus storing identifications of instructions received in the past, determining whether a newly received instruction is the same as one already received in the

past by comparing the identification of the newly received instruction with stored identifications of instructions received in the past, and if the newly received instruction is different from each of instructions that have already been received in the past, installing, executing or quitting a program based on the type of instruction provided in the newly received instruction.

The Earl, et al. patent discloses a distributed computer system including a plurality of nodes connected by an interface and an SMS/boot server, which manages services such as starting, stopping and rebooting of the nodes and manages software upgrades in the nodes. Abstract; Col. 3, lines 26-56; Col. 4, lines 4-13. In the Earl, et al. patent, software upgrades are initiated and carried out by the SMS/boot server in a sequential node-by-node manner wherein the SMS/boot server, after receiving a software upgrade, determines whether the upgrade is compatible with the software on the nodes and/or whether a request to upgrade to compatible software is in progress. Col. 5, lines 37-47; Col. 8, lines 1-34. If the software is not compatible and no upgrade to a compatible software release is in program, the SMS/boot server terminates the upgrade procedure. Col. 8, lines 23-34. If the SMS/boot server determines that the software is compatible, the SMS/boot server performs a rolling upgrade of the software by sequentially loading the new software on each node in the system. Col. 5, line 55 to Col. 6, lines 18. In particular, Earl, et al. discloses that when the SMS/boot server performs the rolling software upgrades, the SMS/boot server begins with a first node and upgrades the first node by determining whether the first node is running the active/new release of the software by checking a central database, determining whether the first node has been "protected" if the first node is not running the active release, and, if the first node has not been protected, loading the new software release onto the node and rebooting it. Col. 8, line 57-Col. 9, line 53. After upgrading the first node, the SMS/boot server proceeds to the next node in the system and

repeats the upgrade steps. Col. 9, lines 61-65. When all of the nodes are running the active/new release of the software, the upgrade procedure is terminated. Col. 10, lines 16-19.

Thus, the Earl, et al. patent only discloses a management apparatus, i.e. SMS/boot server, connected to a plurality of terminal apparatuses, i.e. nodes, that manages and controls the services (starting, stopping and rebooting) of the terminal apparatuses and software upgrades in the terminal apparatuses so as to upgrade the software on all of the terminal apparatuses on a terminal-by-terminal basis. The Earl, et al. patent does not mention storing identifications of instructions received in the past, which are then used to determine whether the newly received instruction is the same as any of the instructions received in the past. Instead, Earl, et al. only discloses configuration database (CDB) which identifies release(s) of software running on the terminal apparatuses and the management apparatus determining whether newly received software is compatible with software on the terminal apparatuses using the configuration database. Col. 5, lines 37-41; Col. 8, lines 1-22.

The Earl, et al. patent is also completely silent as to the terminal apparatus storing identifications of instructions received in the past, determining whether or not a newly received instruction is the same as any of the instructions that have already been received in the past using the identification of the newly received instruction and the stored identifications. Instead, in Earl, et al., it is the management apparatus, and not the terminal apparatus, which determines whether newly received software is compatible with the software running on the terminal apparatus, and whether a software upgrade is to be performed, using the configuration database stored on the management apparatus. See, Col. 5, lines 37 – 40; Col. 6, lines 19 – 25; Col. 6, lines 39 – 41.

Moreover, the terminal apparatuses in the Earl, et al. patent do not themselves install programs by downloading the program designated by the newly received instruction from a

server designated by the newly received instruction and installing the downloaded program and do not quit a program which has been executed and designated by the newly received instruction. Rather, Earl, et al. teaches that installation of programs and program updates in the terminal apparatuses, as well as termination of program installations if the program update is not compatible, is performed by the management apparatus, i.e. SMS/boot server.

Accordingly, Earl, et al. does not teach or suggest the terminal apparatus storing identifications of instructions received in the past, determining whether a newly received instruction is the same as one of instructions already received in the past using an identification of the newly received instruction and the stored identifications of instructions received in the past, downloading a program designated by the newly received instruction from a server designated by the newly received instruction and installing the program, if the newly received instruction is a program install instruction and is different from each of instructions already received in the past, and quitting a program that has been executed and is designated by the newly received instruction if the newly received instruction is a program execution quit instruction and is different from each of instructions already received in the past. Applicants' independent claims 1, 5 and 7, each of which recites these features, and their respective dependent claims, thus patentably distinguish over the Earl, et al. patent.

Furthermore, the Earl, et al. patent makes no mention of the terminal apparatuses, i.e. nodes, searching for another terminal apparatus connected to the network based on certain criteria, and transferring an instruction to the other terminal apparatus. Instead, Earl, et al. merely discloses that the management apparatus, i.e. SMS/boot server, after upgrading the first terminal apparatus, moves on to the "next" terminal apparatus in the system, and only discloses the management apparatus sends or transfers instructions to other terminal apparatuses. Col. 9, lines 61-65. Thus, the Earl, et al. patent also does not teach or suggest the terminal apparatus

searching for a second terminal apparatus which is connected to the network and that has not received the newly received instruction and transferring the new received instruction to the second terminal apparatus.

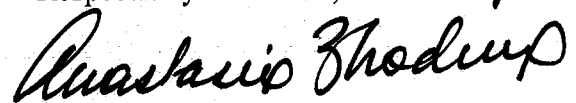
Accordingly, applicant again submits that applicant's amended independent claims 1, 5 and 7, which recite the terminal apparatus searching for another, or second, terminal apparatus which is connected to the network and has not received a newly received instruction, and transferring a newly received instruction to the second terminal apparatus, and their respective dependent claims, patentably distinguish over the Earl, et al. patent. Moreover, although the Examiner has not cited any prior art in support of the "Official Notice," there is nothing added by the concepts of providing quitting instructions and informing instructions relied on by the Examiner to change this conclusion.

In view of the above, it is submitted that applicant's claims, as amended, patentably distinguish over the cited art of record. Accordingly, reconsideration of the claims is respectfully requested.

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